



**XP-V310**

Y1S Y1BD  
Y1BLT Y1BLL

**XP-V311**

AEZ1S AEZ1L  
AHABS AHRJ1D  
AHRJ1S

**XP-V312**

AEZ1S AK1S

# SERVICE MANUAL

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POWERED SUBWOOFER

BASIC CD MECHANISM : DA23L

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- Replace this Service Manual with "Revision Publishing" when it is issued.

**aiwa**  
S/M Code No. 09-003-339-8T2

SIMPLE

DATA

# ELECTRICAL MAIN PARTS LIST - 1

NOTE: The characters in the suffix column indicate the part usage.

312KS .....	XX.....	A.....
311AHRJ1S .....	XX.....	B.....
311AHRJ1D .....	XX.....	C.....
312AEZ1S .....	XX.....	D.....
310Y1BLL .....	XX.....	E.....
311AEZ1L .....	XX.....	F.....
311AHABS .....	XX.....	G.....
310Y1S .....	XX.....	H.....
311AEZ1S .....	XX.....	I.....
310Y1BD .....	XX.....	J.....
310Y1BLT .....	XX.....	K.....

KANRI

REF. NO	PARTS NO.	NO.	DESCRIPTION	SUFFIX
C 804	87-010-178-080	0E	CHIP CAP 1000P	ABCDEFGHIJKLM.....
C 803	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 802	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 808	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 807	87-010-319-080	0E	C-CAP, S 56P-50 CH	ABCDEFGHIJKLM.....
C 806	87-010-319-080	0E	C-CAP, S 56P-50 CH	ABCDEFGHIJKLM.....
C 805	87-010-322-080	0E	C-CAP, S 100P-50 CH	ABCDEFGHIJKLM.....
C 801	87-010-501-040	0E	E/CAP GAS 47-4	ABCDEFGHIJKLM.....
D 801	87-A40-469-080	0E	C-DIODE, HSM2838CTR	ABCDEFGHIJKLM.....
IC 801	8A-HC7-607-010	1H	C-IC, UPD789406AGC-014-8BT	ABCDEFGHIJKLM.....
L 802	87-A50-455-080	1E	C-COIL, 47UH-FSLB2520	ABCDEFGHIJKLM.....
L 801	87-A50-501-080	1B	C-COIL, 10UH-FSLB2520	ABCDEFGHIJKLM.....
LCD 101	8A-HC7-602-010	1C	LCD, AHC-7	ABCDEFGHIJKLM.....
S 801	87-A91-622-010	0E	SW, MICRO PV1102	ABCDEFGHIJKLM.....
S 802	87-A91-742-010		SW, SL 4-1-3 HSW2061-010010	ABCDEFGHIJKLM.....
D 502	87-A40-469-080	0E	C-DIODE, HSM2838CTR	ABCDEFGHIJKLM.....
D 501	87-A40-554-040	0E	C-DIODE, RB491D	ABCDEFGHIJKLM.....
D 503	87-A40-836-040	0E	C-ZENER, HZM6.2NB1	ABCDEFGHIJKLM.....
Q 503	86-NFZ-667-040	0E	C-TR, DTC123JKA	ABCDEFGHIJKLM.....
Q 502	87-A30-246-040	0E	C-TR, 2SA1037AK	ABCDEFGHIJKLM.....
Q 501	89-211-323-080	1A	C-TR, 2SB1132R	ABCDEFGHIJKLM.....
Q 505	89-324-123-080	0E	C-TR, 2SC2412K S	ABCDEFGHIJKLM.....
Q 504	89-416-643-080	0E	C-TR, 2SD1664R	ABCDEFGHIJKLM.....
C 107	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 109	87-010-198-080	0E	CAP, CHIP 0.022	ABCDEFGHIJKLM.....
C 105	87-010-498-040	0E	CAP, E 10-16 GAS	ABCDEFGHIJKLM.....
C 106	87-010-502-040	0E	CAP ELECT GAS 100/4	ABCDEFGHIJKLM.....
C 104	87-010-503-040	0E	CAP, E 220-4 GAS	ABCDEFGHIJKLM.....
C 102	87-010-551-040	0E	CAP, E 33-10 GAS	ABCDEFGHIJKLM.....
C 101	87-010-553-040	0E	CAP, E 47-16 GAS	ABCDEFGHIJKLM.....
C 108	87-012-145-080	0E	CAP, CHIP S 270P CH	ABCDEFGHIJKLM.....
C 103	87-A10-505-040	0E	CAP, E 220-6.3 105 SF	ABCDEFGHIJKLM.....
C 116	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 111	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 115	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 112	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 117	87-010-196-080	0E	CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C 110	87-A10-826-080	0E	C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
C 113	87-A10-826-080	0E	C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
D 104	87-A40-554-040	0E	C-DIODE, RB491D	ABCDEFGHIJKLM.....
D 103	87-A40-590-040	0E	C-DIODE, HRW0202A	ABCDEFGHIJKLM.....
D 102	87-A40-590-040	0E	C-DIODE, HRW0202A	ABCDEFGHIJKLM.....
D 101	87-A40-592-040	0E	C-ZENER, HZM11NB2	ABCDEFGHIJKLM.....
IC 101	87-A21-448-040	1F	C-IC, BH6554FV	ABCDEFGHIJKLM.....
J 101	87-A60-421-010	1A	JACK, DC HEC3600 BLK 6	ABCDEFGHIJKLM.....

## ELECTRICAL MAIN PARTS LIST - 2

L	102	87-A50-573-010	COIL, 330UH LHL06NB	ABCDEFGHIJKLM.....
L	101	87-A50-574-010	COIL, 100UH #7607	ABCDEFGHIJKLM.....
Q	104	87-A30-278-040	1A C-FET, 2SK2980	ABCDEFGHIJKLM.....
Q	103	87-A30-278-040	1A C-FET, 2SK2980	ABCDEFGHIJKLM.....
Q	102	87-A30-332-040	1A C-TR, CPH3106	ABCDEFGHIJKLM.....
Q	101	89-211-323-080	1A C-TR, 2SB1132R	ABCDEFGHIJKLM.....
R	105	87-022-355-080	0E C-RES, S10K-1/10W F	ABCDEFGHIJKLM.....
R	107	87-022-358-080	0E C-RES, S 18K-1/10W F	ABCDEFGHIJKLM.....
S	103	87-A90-095-080	0E SW, TACT EVQ11G04M	ABCDEFGHIJKLM.....
S	104	87-A90-095-080	0E SW, TACT EVQ11G04M	ABCDEFGHIJKLM.....
S	106	87-A90-095-080	0E SW, TACT EVQ11G04M	ABCDEFGHIJKLM.....
S	105	87-A90-095-080	0E SW, TACT EVQ11G04M	ABCDEFGHIJKLM.....
S	102	87-A90-095-080	0E SW, TACT EVQ11G04M	ABCDEFGHIJKLM.....
S	101	87-A90-095-080	0E SW, TACT EVQ11G04M	ABCDEFGHIJKLM.....
C	202	87-010-175-080	0E CAP 560P	ABCDEFGHIJKLM.....
C	208	87-010-177-080	0E C-CAP, S 820P-50 SL	ABCDEFGHIJKLM.....
C	205	87-010-213-080	0E C-CAP, S 0.015-50 B	ABCDEFGHIJKLM.....
C	204	87-010-213-080	0E C-CAP, S 0.015-50 B	ABCDEFGHIJKLM.....
C	209	87-010-213-080	0E C-CAP, S 0.015-50 B	ABCDEFGHIJKLM.....
C	201	87-A10-505-040	0E CAP, E 220-6.3 105 SF	ABCDEFGHIJKLM.....
C	207	87-A10-826-080	0E C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
C	206	87-A10-826-080	0E C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
C	210	87-010-213-080	0E C-CAP, S 0.015-50 B	ABCDEFGHIJKLM.....
C	212	87-A10-826-080	0E C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
CN	202	87-009-411-010	0E CONN, 6P ZH V	ABCDEFGHIJKLM.....
CN	201	87-A61-104-010	1B CONN, 16P H WHITE 52089-1610	ABCDEFGHIJKLM.....
IC	201	87-A21-083-040	1H C-IC, BH6508FS	ABCDEFGHIJKLM.....
Q	201	87-A30-287-040	0E C-TR, DTC114TKA	ABCDEFGHIJKLM.....
C	309	87-010-178-080	0E CHIP CAP 1000P	ABCDEFGHIJKLM.....
C	306	87-010-196-080	0E CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C	308	87-010-196-080	0E CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C	305	87-010-501-040	0E E/CAP GAS 47-4	ABCDEFGHIJKLM.....
C	302	87-010-502-040	0E CAP ELECT GAS 100/4	ABCDEFGHIJKLM.....
C	304	87-010-502-040	0E CAP ELECT GAS 100/4	ABCDEFGHIJKLM.....
C	301	87-016-557-040	0E CAP, E 100-6.3 SF	ABCDEFGHIJKLM.....
C	303	87-016-557-040	0E CAP, E 100-6.3 SF	ABCDEFGHIJKLM.....
C	311	87-010-318-080	0E C-CAP, S 47P-50 CH	ABCDEFGHIJKLM.....
C	314	87-A10-201-080	0E C-CAP, S 0.33-16 KB	ABCDEFGHIJKLM.....
C	313	87-A10-826-080	0E C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
C	357	87-010-196-080	0E CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C	354	87-010-196-080	0E CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C	355	87-010-312-080	0E C-CAP, S 15P-50 CH	ABCDEFGHIJKLM.....
C	356	87-010-312-080	0E C-CAP, S 15P-50 CH	ABCDEFGHIJKLM.....
C	358	87-010-322-080	0E C-CAP, S 100P-50 CH	ABCDEFGHIJKLM.....
C	352	87-010-503-040	0E CAP, E 220-4 GAS	ABCDEFGHIJKLM.....
C	351	87-016-557-040	0E CAP, E 100-6.3 SF	ABCDEFGHIJKLM.....
C	359	87-A10-369-080	0E C-CAP, S 0.47-16 KB	ABCDEFGHIJKLM.....
C	353	87-A10-826-080	0E C-CAP, S 1-10 K B	ABCDEFGHIJKLM.....
C	367	87-010-175-080	0E CAP 560P	ABCDEFGHIJKLM.....
C	368	87-010-196-080	0E CHIP CAPACITOR, 0.1-25	ABCDEFGHIJKLM.....
C	363	87-010-197-080	0E CAP, CHIP 0.01 DM	ABCDEFGHIJKLM.....
C	361	87-010-322-080	0E C-CAP, S 100P-50 CH	ABCDEFGHIJKLM.....
C	365	87-010-322-080	0E C-CAP, S 100P-50 CH	ABCDEFGHIJKLM.....
C	364	87-016-369-080	0E C-CAP, S 0.033-25 KB	ABCDEFGHIJKLM.....
C	362	87-016-669-080	0E C-CAP, S 0.1-25 KB	ABCDEFGHIJKLM.....
C	360	87-016-669-080	0E C-CAP, S 0.1-25 KB	ABCDEFGHIJKLM.....
IC	301	87-A21-381-040	1E C-IC, LA9235M	ABCDEFGHIJKLM.....
IC	351	87-A21-591-010	2A C-IC, LC78641NE-D	ABCDEFGHIJKLM.....
L	301	87-A50-455-080	1E C-COIL, 47UH-FSLB2520	ABCDEFGHIJKLM.....
L	302	87-A50-501-080	1B C-COIL, 10UH-FSLB2520	ABCDEFGHIJKLM.....
L	351	87-A50-501-080	1B C-COIL, 10UH-FSLB2520	ABCDEFGHIJKLM.....

## ELECTRICAL MAIN PARTS LIST - 3

Q	301	87-A30-246-040	0E C-TR , 2SA1037AK	ABCDEFGHIJKLM.....
Q	302	87-A30-287-040	0E C-TR , DTC114TKA	ABCDEFGHIJKLM.....
Q	303	87-A30-287-040	0E C-TR , DTC114TKA	ABCDEFGHIJKLM.....
Q	305	87-A30-287-040	0E C-TR , DTC114TKA	ABCDEFGHIJKLM.....
R	307	87-022-202-080	0E C-RES , S33K 1/10WF	ABCDEFGHIJKLM.....
R	309	87-022-202-080	0E C-RES , S33K 1/10WF	ABCDEFGHIJKLM.....
R	308	87-022-202-080	0E C-RES , S33K 1/10WF	ABCDEFGHIJKLM.....
R	310	87-022-202-080	0E C-RES , S33K 1/10WF	ABCDEFGHIJKLM.....
R	312	87-022-364-080	0E C-RES , S 82K-1/10W F	ABCDEFGHIJKLM.....
R	311	87-022-364-080	0E C-RES , S 82K-1/10W F	ABCDEFGHIJKLM.....
X	351	87-A70-202-080	1A C-VIB,CER 16.93MHZ CSACV-MXJ04	ABCDEFGHIJKLM.....
C	702	87-010-495-040	0E CAP,E 2.2-50 GAS	ABCDEFGHIJKLM.....
C	703	87-010-498-040	0E CAP,E 10-16 GAS	ABCDEFGHIJKLM.....
C	706	87-010-498-040	0E CAP,E 10-16 GAS	ABCDEFGHIJKLM.....
C	707	87-010-501-040	0E E/CAP GAS 47-4	ABCDEFGHIJKLM.....
C	701	87-010-501-040	0E E/CAP GAS 47-4	ABCDEFGHIJKLM.....
C	704	87-010-503-040	0E CAP,E 220-4 GAS	ABCDEFGHIJKLM.....
C	705	87-010-503-040	0E CAP,E 220-4 GAS	ABCDEFGHIJKLM.....
C	708	87-A10-826-080	0E C-CAP,S 1-10 K B	ABCDEFGHIJKLM.....
C	709	87-A10-826-080	0E C-CAP,S 1-10 K B	ABCDEFGHIJKLM.....
C	714	87-010-196-080	0E CHIP CAPACITOR,0.1-25	ABCDEFGHIJKLM.....
C	713	87-010-196-080	0E CHIP CAPACITOR,0.1-25	ABCDEFGHIJKLM.....
C	717	87-010-196-080	0E CHIP CAPACITOR,0.1-25	ABCDEFGHIJKLM.....
C	715	87-010-196-080	0E CHIP CAPACITOR,0.1-25	ABCDEFGHIJKLM.....
C	716	87-010-196-080	0E CHIP CAPACITOR,0.1-25	ABCDEFGHIJKLM.....
C	712	87-012-141-080	0E CHIP-CAPACITOR,0.22-16F	ABCDEFGHIJKLM.....
C	711	87-012-155-080	0E C-CAP 180P-50CH	ABCDEFGHIJKLM.....
C	710	87-012-155-080	0E C-CAP 180P-50CH	ABCDEFGHIJKLM.....
FB	701	87-A50-623-080	C-COIL,BK2125HS102	ABCDEFGHIJKLM.....
FB	702	87-A50-623-080	C-COIL,BK2125HS102	ABCDEFGHIJKLM.....
FB	704	87-A50-623-080	C-COIL,BK2125HS102	ABCDEFGHIJKLM.....
FB	703	87-A50-623-080	C-COIL,BK2125HS102	ABCDEFGHIJKLM.....
IC	701	87-A21-085-040	1C C-IC,TA2120FN	ABCDEFGHIJKLM.....
J	701	85-HC5-616-010	1B JACK,3.5 ST W/R GRN	ABCDEFGHIJKLM.....
Q	701	87-A30-287-040	0E C-TR , DTC114TKA	ABCDEFGHIJKLM.....
VR	701	87-A90-462-010	1B VR,RTRY 30KCX2 H RK14J12A0	ABCDEFGHIJKLM.....

# MECHANICAL PARTS LIST - 1

NOTE: The characters in the suffix column indicate the part usage.

312KS .....	XX.....	A.....
311AHRJ1S .....	XX.....	B.....
311AHRJ1D .....	XX.....	C.....
312AEZ1S .....	XX.....	D.....
310Y1BLL .....	XX.....	E.....
311AEZ1L .....	XX.....	F.....
311AHABS .....	XX.....	G.....
310Y1S .....	XX.....	H.....
311AEZ1S .....	XX.....	I.....
310Y1BD .....	XX.....	J.....
310Y1BLT .....	XX.....	K.....

KANRI

REF. NO	PARTS NO.	NO.	DESCRIPTION	SUFFIX
	88-HC6-021-010	1A	FOOT, DIA10	ABCDEFGHIJKLM.....
	8A-HC7-007-010		WINDOW,CD	AB.DE.GHIJ.L.....
	8A-HC7-015-010		CABI ASSY,CENTER	AB.D..GHIJ.....
	8A-HC7-016-010		CABI ASSY,BOTTOM	AB.D..GHIJ.....
	8A-HC7-017-010		LID ASSY,CD	AB.D..GHIJ.....
	8A-HC7-018-110	OE	LEVER,OPEN	ABCDEFGHIJKLM.....
	8A-HC7-035-010		CABI ASSY,CENTER (LL)	....E.....
	8A-HC7-036-010		CABI ASSY,BOTTOM (LL)	..C.EF....K.....
	8A-HC7-037-010		LID ASSY,CD 311 (LL)	....E.....
	8A-HC7-051-010		LID ASSY,CD 310 (D)	..C.....K.....
	8A-HC7-052-010		LID ASSY,CD 310 (L)	....F.....
	8A-HC7-053-010		LID ASSY,CD 310 (LT)	.....L.....
	8A-HC7-065-010		CABI ASSY,CENTER (L)	....F.....
	8A-HC7-066-010		CABI ASSY,CENTER (D)	..C.....K.....
	8A-HC7-067-010		CABI ASSY,CENTER (LT)	.....L.....
	8A-HC7-068-010		CABI ASSY,CENTER (G)	.....L.....
	8A-HC7-075-010		CABI ASSY,BOTTOM (LT)	.....L.....
	8A-HC7-078-010		WINDOW,CD (D)	..C.....K.....
	8A-HC7-079-010		WINDOW,CD (L)	....F.....
	8A-HC7-012-010		KNOB,SL HOLD	ABCDEFGHIJKLM.....
	8A-HC7-005-010		WINDOW,DISPLAY	....E..HI.KL.....
	8A-HC7-006-010		SH,DISPLAY	ABCDEFGHIJKLM.....
	8A-HC7-019-010		WINDOW,DISPLAY 311	.BC..FG..J.....
	8A-HC7-020-010		WINDOW,DISPLAY 312	A..D.....
	85-HC6-205-110	OE	SHAFT,LID(300) HK	ABCDEFGHIJKLM.....
	87-HC8-205-010	OE	BAT-CONTACT,(+)(-)	ABCDEFGHIJKLM.....
	8A-HC7-201-010		GUIDE,LCD	ABCDEFGHIJKLM.....
	8A-HC7-204-010		SPR-T,OPEN	ABCDEFGHIJKLM.....
	8A-HC7-206-010		BAT-CONTACT,(+) (HK)	ABCDEFGHIJKLM.....
	8A-HC7-207-010		BAT-CONTACT,(-) (HK)	ABCDEFGHIJKLM.....
	8Z-HC1-225-010	OE	DMPR,MECHA(SP)	ABCDEFGHIJKLM.....
	87-067-868-010	OE	V+1.7-4 HL BLK	ABCDEFGHIJKLM.....
	87-067-869-010	OE	V+1.7-8 HL BLK	ABCDEFGHIJKLM.....

## ACCESSORIES LIST

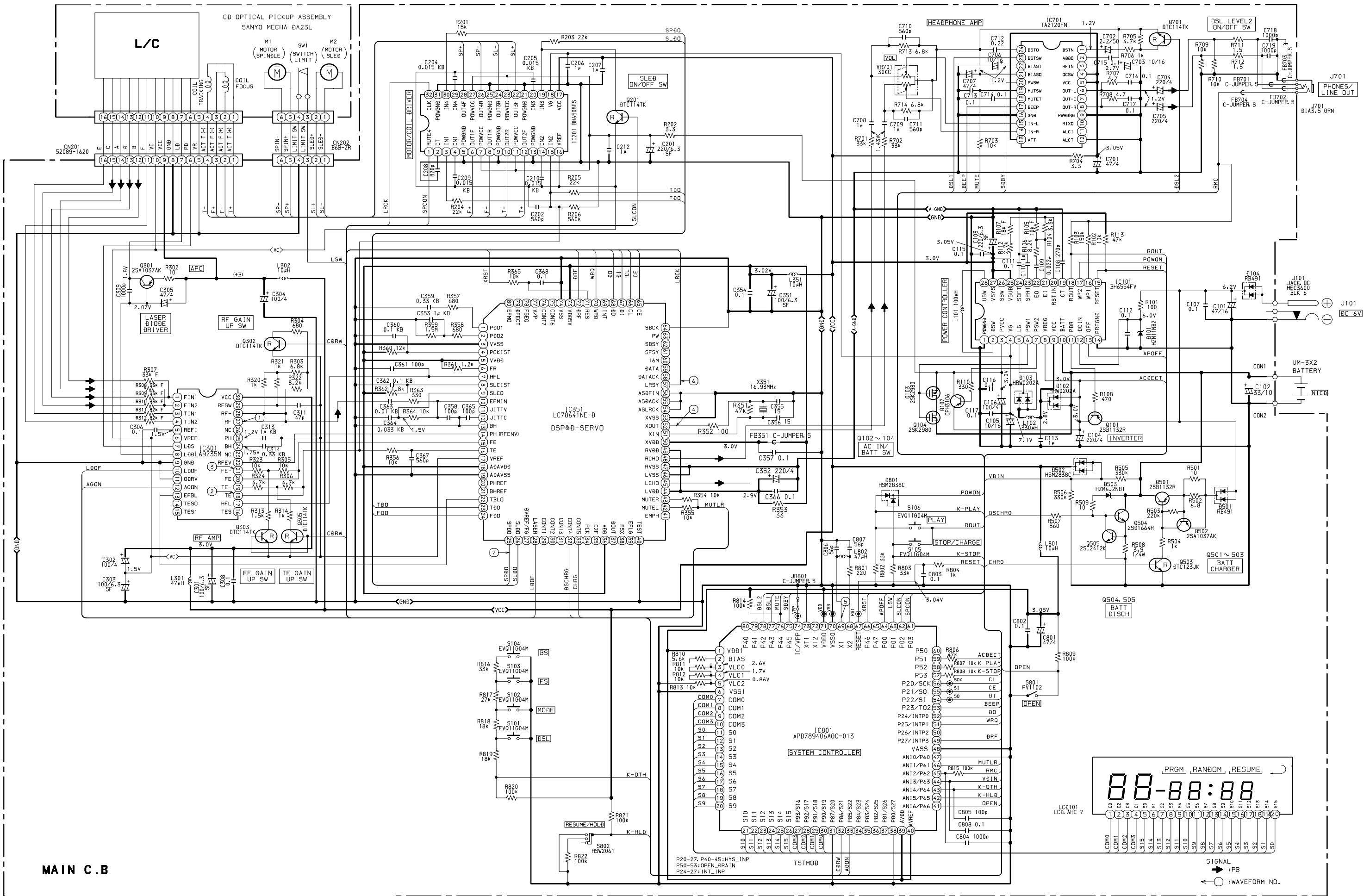
NOTE: The characters in the suffix column indicate the part usage.

312KS .....	XX.....	A.....
311AHRJ1S .....	XX.....	B.....
311AHRJ1D .....	XX.....	C.....
312AEZ1S .....	XX.....	D.....
310Y1BLL .....	XX.....	E.....
311AEZ1L .....	XX.....	F.....
311AHABS .....	XX.....	G.....
310Y1S .....	XX.....	H.....
311AEZ1S .....	XX.....	I.....
310Y1BD .....	XX.....	J.....
310Y1BLT .....	XX.....	K.....

### KANRI

REF. NO	PARTS NO.	NO.	DESCRIPTION	SUFFIX
8A-HC7-902-010		IB,HR(ECA)C		..C.....
8A-HC7-908-010		IB,D		.....
8A-HC7-912-010		IB,HR(ECA)C F		.BC.....
8A-HC7-914-010		IB,LH(3L)C F		.....G.....
8A-HC7-935-010		IB,EZ(EGF)C 311 F		.....F...J.....
8A-HC7-936-010		IB,EZ(SID)C 311 F		.....F...J.....
8A-HC7-937-010		IB,EZ(PHNCZ)C 311 F		.....F...J.....
8A-HC7-945-010		IB,Y(EGF)C 310 F		....E..HI.KL.....
8A-HC7-946-010		IB,Y(SID)C 310 F		....E..HI.KL.....
8A-HC7-947-010		IB,Y(PHNCZ)C 310 F		....E..HI.KL.....
8A-HC7-955-010		IB,EZ(EGF)C 312 F		A..D.....
8A-HC7-956-010		IB,EZ(SID)C 312 F		...D.....
8A-HC7-957-010		IB,EZ(PHNCZ)C 312 F		...D.....
87-A91-017-010	1A	PLUG,CONVERSION JT-0476		.BC.....
87-B30-141-010	1E	BAT,NB-301 NC(2PCS)		A..D.....
87-B30-259-010	1H	HEADPHONE,HP-M032(T) L		.....L.....
87-B30-281-010	1H	AC ADAPTOR,AC-D603NC		.....
87-B30-283-010	1H	AC ADAPTOR,AC-D603ENC		...D.F...J.....
87-B30-284-010	2A	AC ADAPTOR,AC-D603KNC		A.....
87-B30-285-110	2A	AC ADAPTOR,AC-D603HRNC		.BC.....
87-B30-287-010	1H	AC ADAPTOR,AC-D603HANC		....G.....
87-B30-326-010	1F	HEADPHONE,HP-M048		ABCDEFGHIJK.....

# SCHEMATIC DIAGRAM-1(MAIN)



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